CLAIMS

1. A power amplifier comprising:

a first amplification circuit connected at an output terminal thereof to one end of a load and for making noninverting-amplification of an input signal;

a second amplification circuit connected at an output terminal thereof to the other end of the load and for making inverting-amplification of an input signal;

deviation detecting means for detecting a deviation between potentials at the output terminals of the first and second amplification circuits; and

operation stopping means which works according to a detection output from the deviation detecting means to stop the first and second amplification circuits from operating.

2. The apparatus as set forth in claim 1, wherein

the first amplification circuit includes:

first pulse width modulation means for converting the input signal into a first pulse width modulation signal whose pulse width corresponds to quantization level of the input signal; and

a first switching circuit for performing a switching operation, according to a drive pulse from the first pulse width modulation means, wherein the output terminal thereof is connected to one end of the load; and

the second amplification circuit includes:

second pulse width modulation means for converting the input signal into

a second pulse width modulation signal whose pulse width corresponds to two's complement of quantization level of the input signal; and

a second switching circuit for performing a switching operation, according to a drive pulse from the second pulse width modulation means, wherein the output terminal thereof is connected to the other end of the load.

3. The apparatus as set forth in claim 2, wherein the operation stopping means stops, based on the deviation detection output from the deviation detecting means, supplying a source voltage to at least any one of the first and second pulse width modulation means, and first and second switching circuits.

4. The apparatus as set forth in claim 2, wherein the operation stopping means stops, based on the deviation detection output from the deviation detecting means, the first and/or second pulse width modulation means from outputting a pulse width modulation signal.

5. The apparatus as set forth in claim 1, wherein:

the first amplification circuit includes:

first pulse width modulation means for converting the input signal into a first pulse width modulation signal whose pulse width corresponds to quantization level of the input signal;

first driving means for converting the first pulse width modulation signal output from the first pulse width modulation means into a first pair of drive pulses whose levels are opposite to each other; and

a first push-pull circuit formed from a first pair of switching elements pushpull-connected to each other, the first pair of switching elements being supplied with the first pair of drive pulses from the first driving means, and the first push-pull circuit being connected at the output terminal thereof to one end of a load; and

the second amplification circuit includes:

second pulse width modulation means for converting the input signal into a second pulse width modulation signal whose pulse width corresponds to two's complement of quantization level of the input signal;

second driving means for converting the second pulse width modulation signal output from the second pulse width modulation means into a second pair of drive pulses whose levels are opposite to each other; and

a second push-pull circuit formed from a second pair of switching elements pushpull-connected to each other, the second pair of switching elements being supplied with the second pair of drive pulses from the second driving means, and the second push-pull circuit being connected at the output terminal thereof to the other end of a load.

6. The apparatus as set forth in claim 5, wherein the operation stopping means stops, based on the deviation detection output from the deviation detecting means, supplying a source voltage to the first and/or second pulse width modulation means.

7. The apparatus as set forth in claim 5, wherein the operation stopping means stops, based on the deviation detection output from the deviation detecting means, the first

and/or second pulse width modulation means from outputting the pulse width modulation signal.

8. The apparatus as set forth in claim 5, wherein the operation stopping means stops, based on the deviation detection output from the deviation detecting means, the first and/or second driving means from outputting the pair of drive pulses.

9. The apparatus as set forth in claim 1, wherein the operation stopping means stops, based on the deviation detection output from the deviation detecting means, supplying a source voltage to the first and/or amplification circuit.

10. A power amplifier comprising:

a first amplification circuit connected at an output terminal thereof to one end of a load and for making noninverting-amplification of an input signal;

a second amplification circuit connected at an output terminal thereof to the other end of the load and for making inverting-amplification of an input signal;

deviation detecting means for detecting a deviation between potentials at the output terminals of the first and second amplification circuits; and

disconnecting means for working according to a detection output from the deviation detecting means to disconnect the load from the output terminal.

11. The apparatus as set forth in claim 10, wherein:

the first amplification circuit includes:

first pulse width modulation means for converting the input signal into a first pulse width modulation signal whose pulse width corresponds to quantization level

of the input signal; and

a first switching circuit for performing a switching operation, according to a drive pulse from the first pulse width modulation means, wherein the output terminal thereof is connected to one end of the load; and

the second amplification circuit includes:

second pulse width modulation means for converting the input signal into a second pulse width modulation signal whose pulse width corresponds to two's complement of quantization level of the input signal; and

a second switching circuit for performing a switching operation, according to a drive pulse from the second pulse width modulation means, wherein the output terminal thereof is connected to the other end of the load.

12. The apparatus as set forth in claim 10, wherein:

the first amplification circuit includes:

first pulse width modulation means for converting the input signal into a first pulse width modulation signal whose pulse width corresponds to quantization level of the input signal;

first driving means for converting the first pulse width modulation signal output from the first pulse width modulation means into a first pair of drive pulses whose levels are opposite to each other; and

a first push-pull circuit formed from a first pair of switching elements pushpull-connected to each other, the first pair of switching elements being supplied

with the first pair of drive pulses from the first driving means, and the first push-pull circuit being connected at the output terminal thereof to one end of a load; and

the second amplification circuit includes:

second pulse width modulation means for converting the input signal into a second pulse width modulation signal whose pulse width corresponds to two's complement of quantization level of the input signal;

second driving means for converting the second pulse width modulation signal output from the second pulse width modulation means into a second pair of drive pulses whose levels are opposite to each other; and

a second push-pull circuit formed from a second pair of switching elements pushpull-connected to each other, the second pair of switching elements being supplied with the second pair of drive pulses from the second driving means, and the second push-pull circuit being connected at the output terminal thereof to the other end of a load.